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(54) Title: **DECODING OF WATERMARKED INFORMATION SIGNALS**

(57) Abstract: Method and apparatus are described for compensating for time offset in a received signal, so as to correctly align the frame sequence of a received signal to a sequence of transmitted symbols. Each symbol extends over T_s signal samples. The received signal is first divided into a sequence of frames of length T_s , and then each frame divided into a multiplicity of N_b sub-frames. Subsequently, N_b sequences of values are formed, where every successive value in each sequence is derived from the corresponding sub-frame within each successive frame. Each of the N_b sequences is an estimate for the correctly aligned sequence of transmitted symbols.

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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
 IPC 7 G11B20/00 G10L19/02

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 G11B G10L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, INSPEC, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	VEEN VAN DER M ET AL: "ROBUST, MULTI-FUNCTIONAL AND HIGH-QUALITY AUDIO WATERMARKING TECHNOLOGY" PREPRINTS OF PAPERS PRESENTED AT THE AES CONVENTION, XX, XX, vol. 110, no. 5345, 12 May 2001 (2001-05-12), pages 1-9, XP001086463 the whole document	1,2, 11-13, 15-18
T	LEMMA A N ET AL: "A temporal domain audio watermarking technique" IEEE TRANSACTIONS ON SIGNAL PROCESSING, APRIL 2003, IEEE, USA, vol. 51, no. 4, pages 1088-1097, XP002242882 ISSN: 1053-587X the whole document	1-18

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☒ Patent family members are listed in annex.

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>US 6 330 673 B1 (LEVINE EARL) 11 December 2001 (2001-12-11) abstract; figures 13,14 -----</p>	1-18

on patent family members

Patent document
cited in search report

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US 6330673

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